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The series of miscellaneous papers herewith initiated is designed as an outlet for original articles, more or less technical in nature, one to four pages in length, in any field of natural history. Individual issues, published at irregular intervals, will be numbered separately and will represent only one field of specialization; e. g., botany, geology, entomology, herpetology, etc. The series will be distributed to libraries and scientific organizations with which the Academy maintains exchanges, and a title page and index will be supplied to these institutions when a sufficient number of pages to form a volume have been printed. Individual specialists with whom the museum or the various authors maintain exchanges will receive only those numbers dealing with their particular fields of interest. A reserve will be set aside for future exchanges and a supply of each number will be available for sale at a nominal price. Authors may obtain copies : for their personal exchanges at the prevailing rates for similar reprints.

H. K. Gloyd, Director of the Museum.

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A Case of Hermaphroditism in the Cutthroat Trout

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The writer was recently presented with an unusual specimen of a gonad from a cutthroat trout, *Salmo clarkii* (Richardson). The female fish, 31.2 cm. in length, from which the gonad was taken was collected in Yellowstone Lake, Wyoming, on June 25, 1944 by Dr. Stillman Wright.

The left ovary is normal in every respect and the right ovary is normal but a little shorter than the left. The right ovary is filled with large, golden-colored ovocytes about 4.5 mm. in diameter and imbedded in the tissue between the larger ovocytes are numerous cream-colored ovocytes about 0.5 mm. in diameter.

At the anterior end of the right ovary there is a flattened oval mass, 22 mm. long and 7 mm. in diameter, which has the white color of a testis. The

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small white mass is suspended from the dorsal body wall by an anterior extension of the mesovarium.

Some cross sections of the white mass show clearly the histological structure of a small but rather perfect testis. The interior is filled with mature spermatozoa and near the periphery there are nests of spermatogonia. The cleavage between the testicular and the ovarian parts of the gonad is sharp. Anterior to the mass of connective tissue which forms the zone of junction only testicular tissues occur and posterior to the zone there are only typical and normal ovarian structures.

In some of the genera of teleost fishes (*Sargus*, *Serranus* and others) hermaphroditism is normal and functional ovaries and spermaries occur in the same specimens. In at least seventeen other genera of teleost fishes hermaphroditism of some type has been found to occur sporadically. In a few rare instances fully developed ovaries and spermaries have been found in the same specimens together with normal genital outlets for both sets of gonads. In a few instances a normal ovary has occurred on one side and a normal spermary on the other as if the specimen were gynandromorphic. In most cases a normal ovary or spermary has been present and in addition a partial or complete gonad of the opposite sex. In those cases in which two perfect sets of gonads occur, both giving evidence of being functional, it must be assumed that a condition of true hermaphroditism was established early in the life history of the fish. In the instances in which gonads of female or male are full sized and normal and in addition there is a partial gonad of the opposite sex, usually abnormal in position, it may be assumed that the fish is a true male or female and that local physiological conditions have developed favoring the formation of a gonad of the opposite sex in a circumscribed area, possibly during a period of quiescence following the season for the emission of mature eggs or sperm. Presumably the specimen described here is a normal female which developed, late in life, a small spermary during a quiescent period.